

Applicant: Darrel L. Turner
Application No.: 08/532,046
Art Unit: 3501

Sub C1
Please cancel Claim 6.

- B1s*
3. (Amended) A process for forming a rotary cutting blade, comprising the steps
- a) working a blank of boron steel to have a bevelled cutting edge; and
 - b) heat treating the formed blank to elevate the blank hardness to between 48 and 55 on the Rockwell Hardness Scale to thereby form a rotary cutting blade having Charpy Notch toughness of at least 15 ft.lb., wherein the heat treating step comprises austempering the formed blank.

- Sub C2*
7. (Amended) [The process of Claim 3] A process for forming a rotary cutting blade, comprising the steps of
- a) working a blank of boron steel to have a bevelled cutting edge; and
 - b) heat treating the formed blank to elevate the blank hardness to between 48 and 55 on the Rockwell Hardness Scale to thereby form a rotary cutting blade having Charpy Notch toughness of at least 15 ft.lb. wherein the heat treating step comprises marquenching the formed blank.

- B2*
8. (Amended) [The process of Claim 3] A process for forming a rotary cutting blade, comprising the steps of
- a) working a blank of boron steel to have a bevelled cutting edge; and
 - b) heat treating the formed blank to elevate the blank hardness to between 48 and 55 on the Rockwell Hardness Scale to thereby form a rotary cutting blade having Charpy Notch toughness of at least 15 ft.lb. wherein the heat treating step comprises quenching the formed blank in a liquid selected from the group consisting of oil, polymer, or water, and tempering the quenched blank.

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8. (Amended) [The process of Claim 3] A process for forming a rotary cutting blade, comprising the steps of:

- b2 cont
- a) working a blank of boron steel to have a bevelled cutting edge; and
 - b) heat treating the formed blank to elevate the blank hardness to between 48 and 55 on the Rockwell Hardness Scale, wherein the heat treating step comprises[:]
the steps of [a)] heating the blank to approximately 1560 °F; [b)] quenching the heated blank into a liquid salt bath at approximately 500 °F for about 20 seconds; [c)] withdrawing the quenched blank from the salt bath and allowing it to air cool to room temperature; and [d)] tempering the cooled blank at approximately 300 °F.

10. (Amended) [The process of Claim 3] A process for forming a rotary cutting blade, comprising the steps of:

- a) working a blank of boron steel to have a bevelled cutting edge; and
- b) heat treating the formed blank to elevate the blank hardness to between 48 and 55 on the Rockwell Hardness Scale, wherein the heat treating step comprises[:]
[a)] heating the blank to approximately 1560 °F; [b)] quenching the heated blank into a liquid salt bath at approximately 500 °F for about 20 minutes; and [c)] withdrawing the quenched blank from the salt bath and allowing it to air cool to room temperature.

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Please add the following new claims:

11. The process of Claim 8, wherein the working step comprises cold-forming the blank of boron steel.

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